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Serial No.: 09/911,367

Applicant(s): Landis, et al.

Filed: July 23, 2001

Title: DIAZAPHOSPHACYCLES

Date Mailed: December 5, 2001

- ☒ Information Disclosure Statement (duplicate)
- ☒ Form PTO-1449
- ☒ Cited Documents



DOCKET NO.: 032026:0594

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PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Clark R. Landis  
Wiechang Jin  
Jonathan S. Owen  
Thomas P. Clark

Date: December 5, 2001

Docket No.: 032026:0594

Group Art Unit: 1625

Serial No.: 09/911,367

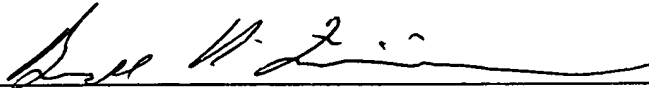
Filed: July 23, 2001

For: **DIAZAPHOSPHACYCLES**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: U.S. Commissioner of Patents and Trademarks, Washington, D.C. 20231 on December 5, 2001.

\_\_\_\_\_  
Bernard P. Friedrichsen

(Name of applicant, assignee  
or Registered Representative)

\_\_\_\_\_  


(Signature)

\_\_\_\_\_  
December 5, 2001

(Date of Signature)

**INFORMATION DISCLOSURE STATEMENT**

U.S. Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Dear Sir:

Submitted herewith on Form PTO-1449 and presented below is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 C.F.R. § 1.56. A copy of each listed document is being submitted to comply with the provisions of 37 C.F.R. §§ 1.97 and 1.98.

### OTHER DOCUMENTS

Märkl, G., et al., "1.5-Diaza-3-Phospha-Cycloheptane N.N'-Bis-[Phosphinomethyl]-Ethyldiamine Mit Optisch Aktiven Seitenketten," Tetrahedron Letters, Vol. 21, pp. 3467-3470 (1980), published by Pergamon Press Ltd., Oxford, Great Britain.

Märkl, G., et al., "1.2-Diaza-4-Phospha-Cyclopentane - 1.5-Diaza-3.7-Diphospha-Bicyclo-[3.3.0] Octane N.N'-[Bisphosphinomethylen]-N.N'-Dimethylhydrazine 1.3-Diaza-5-Phospha-Cyclohexane," Tetrahedron Letters, Vol. 22, pp. 229-232 (1981), published by Pergamon Press Ltd., Oxford, Great Britain.

Arbuzov, B. A., et al., "Synthesis and Structure of 1,5-Diaza-3,7-Diphosphacyclooctanes," Bulletin of Academy of Science of USSR, Division of Chemical Science, pp. 1672-1676 (1984), published by Plenum Publishing Corp., New York, New York translated from Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No. 8, pp. 1846-1850, August, 1983.

Alcock, N., et al., "Substrate-induced Kinetic Resolution of Racemic Biphosphines *in situ* for Homogeneous Catalysis," J. Chem. Soc. Chem. Commun., pp. 1532-1534 (1986), published by Royal Chemical Society, London, England.

Burk, M. J., et al., "New Electron-Rich Chiral Phosphines for Asymmetric Catalysis," Organometallics, Vol. 9, pp. 2653-2655 (1990), published by American Chemical Society, Washington, D.C.

Burk, M. J., et al., "C<sub>2</sub>-Symmetric Bis(phospholanes) and Their use in Highly Enantioselective Hydrogenation Reactions," J. Am. Chem. Soc., Vol. 113, pp. 8518-8519 (1991), published by American Chemical Society, Washington, D.C.

Faller, J. W., et al., "Chiral Poisoning: A Novel Strategy for Asymmetric Catalysis," J. Am. Chem. Soc., Vol. 115, pp. 804-805 (1993), published by American Chemical Society, Washington D.C.

Khairullin, V. K., et al., "Reaction of N,N'-Dibenzylidenehydrazine with Dialkyl Hydrogen Phosphites and Phosphinic and Thioglycolic Acids," Russian Journal of General Chemistry, Vol. 64, No. 4, pp. 557-559 (1994), published by Plenum Publishing Corp., New York, New York.

Kacker, S., et al., "Alternating Copolymers of Functional Alkenes with Carbon Monoxide," Macromolecules, Vol. 29, pp. 5852-5858 (1996), published by American Chemical Society, Washington, D.C.

Jandeleit, B., et al., "Combinatorial Materials Science and Catalysis," Angew. Chem. Int. Ed., Vol. 38, pp. 2495-2532 (1999), published by Wiley-VCH Verlag GmbH, Weinheim, Germany.

Portnoy, M., et al., "Solid-Phase Synthesis of an  $\alpha$ -Aminophosphine Library," J. Comb. Chem., Vol. 3, pp. 524-527 (2001), published by American Chemical Society, Washington, D.C.

#### **REMARKS**

The submission of any documents herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 C.F.R. §1.56(b). Applicants do not waive any rights to take any action which would be

appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a prima facie prior art reference against the claims of the present application.

Applicants believe that this Information Disclosure Statement is being submitted prior to the mailing of an Office Action on the merits as set forth in 37 C.F.R. § 1.97(b)(3). Therefore, Applicants believe that no fee is due for this filing. In the event that an Office Action on the merits has been mailed, then Applicants submit this Information Disclosure Statement under 37 C.F.R. § 1.97(c)(2). Should any fee be due, the Patent Office is hereby authorized to charge any fees required for this filing to deposit account no. 06-1447. For the purpose of charging said deposit account, a duplicate of this document is submitted herewith.

It is requested that the foregoing documents be considered during examination of the accompanying application and be made of record therein.

Respectfully Submitted,

*December 5, 2001*



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FORM PTO 1449 (modified)  
 U.S. DEPARTMENT OF COMMERCE  
 PATENT AND TRADEMARK OFFICE  
 LIST OF REFERENCES CITED BY APPLICANT(S)  
 (Use several sheets if necessary)  
 Date Submitted to PTO: December 5, 2001

ATTY DOCKET NO.  
 032026:0594

SERIAL NO.  
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APPLICANTS  
 Clark R. Landis, et al.

FILING DATE  
 July 23, 2001

GROUP  
 1625

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

			Märkl, G., et al., "1.5-Diaza-3-Phospha-Cycloheptane N.N'-Bis-[Phosphinomethyl]-Ethylendiamine Mit Optisch Aktiven Seitenketten," Tetrahedron Letters, Vol. 21, pp. 3467-3470 (1980), published by Pergamon Press Ltd., Oxford, Great Britain.
			Märkl, G., et al., "1.2-Diaza-4-Phospha-Cyclopentane - 1.5-Diaza-3.7-Diphospha-Bicyclo-[3.3.0] Octane N.N'-[Bisphosphinomethylen]-N.N'-Dimethylhydrazine 1.3-Diaza-5-Phospha-Cyclohexane," Tetrahedron Letters, Vol. 22, pp. 229-232 (1981), published by Pergamon Press Ltd., Oxford, Great Britain.
			Arbuzov, B. A., et al., "Synthesis and Structure of 1,5-Diaza-3,7-Diphosphacyclooctanes," Bulletin of Academy of Science of USSR, Division of Chemical Science, pp. 1672-1676 (1984), published by Plenum Publishing Corp., New York, New York translated from Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No. 8, pp. 1846-1850, August, 1983.
			Alcock, N., et al., "Substrate-induced Kinetic Resolution of Racemic Biphosphines <i>in situ</i> for Homogeneous Catalysis," J. Chem. Soc. Chem. Commun., pp. 1532-1534 (1986), published by Royal Chemical Society, London, England.
			Burk, M. J., et al., "New Electron-Rich Chiral Phosphines for Asymmetric Catalysis," Organometallics, Vol. 9, pp. 2653-2655 (1990), published by the American Chemical Society, Washington, D.C.
			Burk, M. J., et al., "C <sub>2</sub> -Symmetric Bis(phospholanes) and Their use in Highly Enantioselective Hydrogenation Reactions," J. Am. Chem. Soc., Vol. 113, pp. 8518-8519 (1991), published by American Chemical Society, Washington, D.C.
			Faller, J. W., et al., "Chiral Poisoning: A Novel Strategy for Asymmetric Catalysis," J. Am. Chem. Soc., Vol. 115, pp. 804-805 (1993), published by American Chemical Society, Washington, D.C.
			Khairullin, V. K., et al., "Reaction of N,N'-Dibenzylidenehydrazine with Dialkyl Hydrogen Phosphites and Phosphinic and Thioglycolic Acids," Russian Journal of General Chemistry, Vol. 64, No. 4, pp. 557-559 (1994), published by Plenum Publishing Corp., New York, New York.

		Kacker, S., et al., "Alternating Copolymers of Functional Alkenes with Carbon Monoxide," <i>Macromolecules</i> , Vol. 29, pp. 5852-5858 (1996), published by American Chemical Society, Washington, D.C.
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EXAMINER		DATE CONSIDERED

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